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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------|-------------|----------------------|---------------------|------------------|
| 09/866,391 | 05/24/2001 | Gregory J. Wilson | 29195.8157US2 | 4952 |
| 25096 | 7590 | 10/21/2005 | EXAMINER | |
| PERKINS COIE LLP | | | SINES, BRIAN J | |
| PATENT-SEA | | | ART UNIT | |
| P.O. BOX 1247 | | | PAPER NUMBER | |
| SEATTLE, WA 98111-1247 | | | 1743 | |

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,391

Applicant(s)

WILSON ET AL.

Examiner

Brian J. Sines

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/15/2005 (RCE).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45,60-69,71-73,88-90,94-96 and 99-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-45,60-69,71-73,88-90,94-96 and 99-101 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

1. Claims 1 – 8, drawn to a method for controlling an electroplating process, classified in class 700, subclass 263.
2. Claims 9 – 13, 15 – 22 & 24 – 26, drawn to a method for providing closed-loop control for a coating process, classified in class 700, subclass 263.
3. Claims 27 – 34 & 101, drawn to a method and apparatus for automatically configuring control parameters for controlling the operation of a deposition chamber, classified in class 438, subclass 584.
4. Claims 35 – 45, drawn to a method for constructing a sensitivity matrix for use with an electroplating chamber and a computer memory containing a sensitivity matrix related to a deposition chamber, classified in class 700, subclass 266.
5. Claims 60 – 66, drawn to a method for controlling an electroplating process, classified in class 148, subclass 518.
6. Claim 67, drawn to a method for evaluating a design for an electroplating reactor, classified in class 700, subclass 97.
7. Claims 68, 69 & 71 – 73, drawn to an apparatus and method for automatically selecting or configuring parameters for use in controlling the operation of a deposition chamber, classified in class 700, subclass 263.

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8. Claims 88 – 90, drawn to a method for constructing a library of deposition process parameter sets for use in controlling a material deposition tool, classified in class 700, subclass 253.
9. Claims 94 & 95, drawn to a computer memory containing an electroplating current data structure, classified in class 148, subclass 518.
10. Claim 96, drawn to a method for automatically configuring control parameters for use in controlling the operation of a reaction chamber in an electropolishing process, classified in class 700, subclass 266.
11. Claims 99 & 100, drawn to a method for electroplating a microelectronic workpiece, classified in class 700, subclass 253.

The inventions are distinct, each from the other because of the following reasons:

Each of the inventions are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, each of the different inventions either have different modes of operation, effects or functions. For example, the method of invention 1 utilizes a Jacobian sensitivity matrix during operation. Whereas the method of invention 2 does not specifically require this type of sensitivity matrix. The method of invention 5 is directed to a method of controlling an electroplating process. Whereas the method of invention 6 is directed to a method for evaluating an electroplating reactor design.

Because these inventions are distinct for the reasons given above and the search required for each of the groups is different, restriction for examination purposes as indicated is proper.

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Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines whose telephone number is (571) 272-1263. The examiner can normally be reached on Monday - Friday (11 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

